

**REMARKS**

Claims 1, 4-5 and 7 remain pending in the above identified application after this response.

***Claim Amendments***

By this amendment, claims 2 and 3 are cancelled and the limitations thereof added to claim 1. Support for the additional amendments to claim 1 reside at the second and third paragraphs of page 6 of the specification, and the first paragraph of page 7 of the specification. The dependency of claim 7 is amended accordingly. No new matter is added by this amendment.

***Rejection under 35 USC 102(b)/103(a)***

Claims 1-4 and 7 stand rejected under 35 USC 102(b)/103(a) as being unpatentable over Alemany et al '423. This rejection is respectfully traversed.

In response, claims 2 and 3 are cancelled and the limitations thereof added to claim 1. Additional editorial revisions are made to claim 1 as noted above. The amended claims are believed to patentably distinguish over the cited prior art for the reasons discussed below.

By way of review, the claimed invention is directed to a diaper that is capable of being put on the diaper wearer from either the front or back of the wearer, including in an upright position (e.g., see Figures 3 and 4 of the instant application). Especially, in the upright position, such limitations/properties help in being able to achieve a diaper that hardly leaks and can easily be put on the wearer, even when put on a diaper wearer from the front or back side of the wearer.

It was previously known for a diaper to have a topsheet, a liquid impermeable backsheet, and a liquid retentive absorbent member therebetween, with longitudinal end sections having fastening tapes with a waist elastic member provided in the waist portion to form an extensible waist part, together with an extensible side part formed in each of a pair of side areas at a below-waist portion.

However, as a result of intensive study, applicants have determined that when such a diaper is placed on backwards, it turned out that bunching or wrinkling occurs between, or in the vicinity of, the extensible side parts. This generates a gap between the wearer's body and the diaper, easily causing leakage. See page 2, lines 22-24 of the specification.

As previously discussed, in accordance with the present invention, such problems can be prevented by the combined use of the following:

- The absorbent member is disposed such that its longitudinal end in the longitudinal end section having the fastening tapes is nearer to the waist portion of that section than a centerline parallel to a diaper width direction and dividing each of the extensible side parts into equal halves, and a width of the absorbent member located between the pair of extensible side parts is equal to or greater than a minimum width of the absorbent member located in the crotch section of the diaper; and
- The absorbent member has a flexural stiffness of from 3 to 25 gf/50 mm as measured on a specimen cut out of the area from the longitudinal end of the absorbent member in the section having the fastening tapes to 50 mm inward in accordance with JIS K7171.

Even if the absorbent member of the present invention is arranged nearer to the waist elastic element as in Alemany, the sliding distance in front-to-back diapering becomes large as in Example 2, unless the absorbent member does not satisfy the above latter aspect.

On the other hand, in the case where only the above latter aspect is met, front leakage tends to occur when the diaper is put on from the back, as is the case with Comparative Example 1 ( $L4=0.8$ ,  $L3=3$ ). See the front leakproofness in the front-to-back diapering of Table 1 of the specification. The cited prior art neither discloses nor suggests the above combination of limitations which enable such advantageous results to occur.

Further, as discussed above, the present invention is directed to the solution of successful use of a diaper placed on backwards while preventing leakage either way. Such placement successfully occurs as a result of the following aspects of the claimed invention:

- Two portions on opposite sides of a centerline dividing the length of the diaper into equal halves having a saturation absorption capacity ratio of from 45/55 to 55/45;
- The absorbent member has its middle portion in the length direction narrowed.

If a narrowed portion is formed only in one side of the diaper in the longitudinal direction as a diaper of Alemany, liquid is more likely to leak when the diaper is put on in a normal way, or in a backward way. In addition, in the diaper of Alemany, it is not easy to put the legs into the leg openings, and thus difficult to put on. By use of the above two aspects of the present invention, the diaper can successfully be placed on the wearer backward.

Further, ease of front-to-back diapering is enhanced when the following aspects of the invention are practiced:

- A natural length of the waist elastic member in a state removed from the diaper is from 60 to 80% of a length of the waist elastic member as provided as part of the diaper;
- In the first section, the length of the waist elastic member in the widthwise direction is longer than the length of the absorbent member in the widthwise direction.

Such enhanced front-to-back diapering is demonstrated in relation to Comparative Example 2 which does not include the above first aspect. The Examiner's attention is directed to Example 1 of the present invention in relation to Comparative Example 2 of Table 1.

By way of further distinction, Alemany teaches that the resilient members 76, 77 and the elastic side panel member 90 are overlaid with the topsheet 24 and backsheet 26. By contrast, in the present invention, since the subject matter of claims 2 and 3 are incorporated into claim 1, the below-waist elastic members 81 of the present invention are not overlaid with the topsheet and backsheet. The below-waist elastic members 81 of the present invention are intermittently provided and fixed between the topsheet and backsheet. The resilient members 76,77 of Alemany are considered to have no air-permeability, since they are elastic members. The diaper of Alemany provided with the elastic members having no air-permeability results in a lack of the air-permeability in the waist and below-waist portions. Thus, the moisture content or water vapor of sweat or body fluid tend to be confined within the diaper.

The reference also teaches fastening tapes 92 at an opposite end from elastic members 34 of the diaper. This configuration differs from applicants' claimed embodiment where the longitudinal end section having the fastening tapes has a waist elastic member provided in a waist portion to form an elastic waist part. As the reference teaches the fastening tapes and the elastic waist portions at opposite (as opposed to the same) ends, the reference cannot be said to anticipate the claimed invention based on this difference alone.

More specifically, applicants note that, in Alemany, as shown in Figs. 8, 8A and 8B, the elastomeric patches 804 having the topsheet web 806, the backsheet web 805, and the elastomeric member interposed between the webs are sandwiched between a pair of corrugated rolls and deformed into a depressed/protruded form to thereby provide elastomeric patches 804 with elasticity (see column 41, line 58 to column 43, line 33 of the reference).

Due to this structure, the elastic members 76 and 77 (located at the same end as the fastening tapes) stretch only to the extent that the topsheet web 806 and the backsheet web 805 change from a depressed/protruded form to a flat form.

In the case of providing the elastomeric patches 804 with elasticity as in Alemany, it is difficult to deform the topsheet web 806 and the backsheet web 805 into a depressed/protruded form having a large height difference. Therefore, it is difficult to give large elasticity to the webs. In the case of forcibly forming the topsheet web 806 and the backsheet web 805 into a depressed/protruded form having a large height difference, the webs tend to tear, and the mechanical property deteriorates.

By way of yet a further distinction over the cited reference, it is noted that the elastomeric members 76 of Alemany are not provided in a stretched condition as required by the claimed invention.

The Examiner takes the position at page 3 of the Action that this previously-asserted distinction was not recited in the claims. Applicants disagree with the position of the Examiner, noting that claim 1 states that “a natural length of the waist elastic member in a state removed from the diaper is from 60 to 80% of a length of the waist elastic member as provided as part of the diaper.” Clearly, this implies that the waist elastic member is in the stretched state in the diaper, in contrast to the invention of the cited reference. In any event, claim 1 is amended to make this aspect of the claimed invention more clear by addition of the limitation “said waist elastic member being provided in its stretched state over the width of the diaper”.

In view of the above, it is clear that the cited reference fails to disclose or suggest a diaper having the combined beneficial aspects of the claimed invention. Even if one or more of such aspects are, for the sake of argument, suggested, the prior art fails to appreciate the benefit that results from use of a diaper having all claimed aspects of the invention.

The rejection is accordingly without basis and should be withdrawn.

***Rejection under 35 USC 103(a)***

Claim 5 stands rejected under 35 USC 103(a) as being unpatentable over Alemany et al '423 in view of Breitkopf '008. This rejection is respectfully traversed.

The deficiencies of Alemany et al '423 are discussed at length above. In view of such deficiencies, the combined teachings of the cited references cannot result in the claimed invention. The rejection is thus without basis and should be withdrawn.

***Rejection under 35 USC 102(b)/103(a)***

Claim 1 stands rejected under 35 USC 102(b)/103(a) as being unpatentable over Kievit et al '595. This rejection is respectfully traversed.

In response, claims 2 and 3 are cancelled and the limitations thereof added to claim 1. Additional editorial revisions are made to claim 1 as noted above. The amended claims are believed to patentably distinguish over the cited prior art, particularly for the reason that claim 1 now recites the limitations of previously non-rejected claims 2 and 3.


The rejection is thus without basis and should be withdrawn.

The application is now believed to be in condition for allowance, and an early indication of same is earnestly solicited.

Payment in the amount of \$120.00 is submitted herewith for the requested one month extension of time.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Should the Examiner have any questions concerning the instant reply, the Examiner is respectfully requested to contact the undersigned at the telephone number provided, in order to help expedite further prosecution of this case to allowance.

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Respectfully submitted,

By 

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